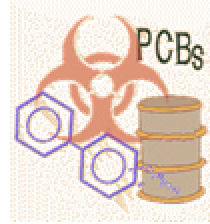


Polychlorinated Biphenyls (PCBs)

Source: Agency for Toxic Substances and Disease Registry

What are PCBs?

- Mixtures of up to 209 individual compounds (congeners).
- No known natural sources of PCBs.
- Either oily liquids or solids that are colorless to light yellow.
- Some PCBs can exist as a vapor in air.
- PCBs have no known smell or taste.



The manufacture of PCBs was stopped in the U.S. in 1977 because of evidence they build up in the environment and can cause harmful health effects.

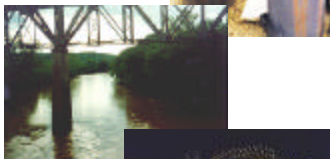
What were PCBs used for?

- Many commercial PCB mixtures are known in the U.S. by the trade name Aroclor.
- Used as coolants and lubricants in transformers, capacitors, and other electrical equipment because they don't burn easily and are good insulators.
- Products made before July, 1979 that may contain PCBs include:
 - fluorescent lighting fixtures and electrical devices containing PCB capacitors
 - microscope and hydraulic oils



How do PCBs impact the natural environment?

- PCBs entered the air, water, and soil during their manufacture, use, and disposal.
- PCBs can also be released to the environment by:
 - accidental spills and leaks during their transport
 - leaks or fires in products containing PCBs
 - hazardous waste sites
 - illegal or improper disposal of industrial wastes and consumer products
 - leaks from old electrical transformers containing PCBs
 - burning of some wastes in incinerators
- PCBs do not readily break down in the environment and thus may remain there for very long periods of time.
- In water, a small amount of PCBs may remain dissolved, but most stick to organic particles and bottom sediments.
- PCBs are taken up by small organisms and fish in water.
- PCBs accumulate in fish and marine mammals, reaching levels that may be many thousands of times higher than in water.



How might I be exposed to polychlorinated biphenyls (PCBs)?

- Using 30 year old fluorescent lighting fixtures and electrical devices and appliances, such as television sets and refrigerators. These appliances may leak small amounts of PCBs into the air when they get hot during operation, and could be a source of skin exposure.
- Eating contaminated food. The main dietary sources of PCBs are fish (especially sportfish caught in contaminated lakes or rivers), meat, and dairy products.
- Breathing air near hazardous waste sites and drinking contaminated well water.
- In the workplace during repair and maintenance of PCB transformers; accidents, fires or spills involving transformers, fluorescent lights, and other old electrical devices; and disposal of PCB materials.



How can polychlorinated biphenyls (PCBs) affect my health?

- The most commonly observed health effects in people exposed to large amounts of PCBs are skin conditions such as acne and rashes.
- Studies in exposed workers have shown changes in blood and urine that may indicate liver damage.
- PCB exposures in the general population are not likely to result in skin and liver effects.
- Most of the studies of health effects of PCBs in the general population examined children of mothers who were exposed to PCBs.
- The EPA and the International Agency for Research on Cancer (IARC) have determined that PCBs are probably carcinogenic to humans.

